

Work Order ID 161297***161297***

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Wednesday, May 17, 2017 11:46:05 AM

Item ID: D4149-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Crosstube Lug Plate, Aft
Start Date: 5/15/2017 Start Qty: 20.00 ***20*** Cust Item ID:
Required Date: 5/16/2017 Req'd Qty: 20.00 ***20*** Customer:
Reference: SCHEDULED/S

Approvals: Process Plan: W Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4149	C								

100

0.00

100Waterjet
FLOW CNC Waterjet**Memo**

Cut as per dwg D4149

Prog Rev: CDwg Rev: C

OPEN TO HOLES TO FINISH SIZE AS PER DWG

Deburr as required

2.29

(20)

on 17/05/30

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110QC
Quality Control**Memo**

0.20

(20)

on 17/05/30

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.40				<u>20</u>			DAS 38 3-89 JUN 05 2017
150 *150* Packaging Packaging	Identify as per dwg & Stock Location: <u>Sto 86</u> Memo	0.00 0.20				<u>20</u>			DAS 3-89 JUN 06 2017
160 *160* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 2.00							17/6/17 JUN 06 2017

Picklist Print

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Work Order ID: 161297

161297

Parent Item: D4149-1

D4149-1

Parent Item Name: Crosstube Lug Plate, Aft

Start Date: 5/15/2017

Required Date: 5/16/2017

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP Rev:A 10.06.24 new issue DD verf:EC
IPP Rev:B 11.03.03 as per revC DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S11GA		Purchased			No	100	sf	45.9830	0.1355	2.852632			
M304S11GA									**				
304/316 0.125 Sheet													

re 17/05/30

Location

Loc Qty

Loc Code

MAT020

45.983

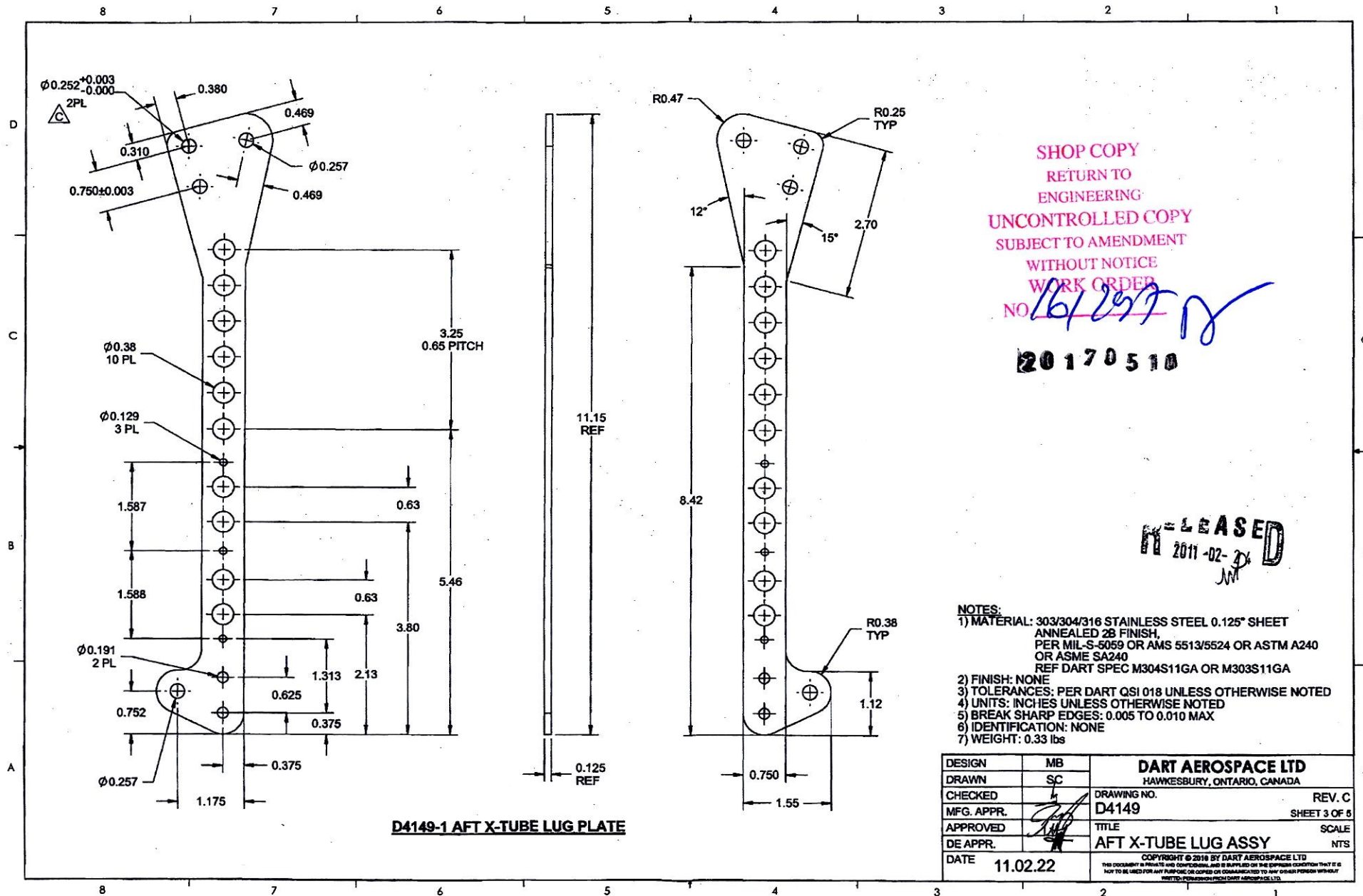
M137110

26.2

M137263

19.783

3.2



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 161297

20170510

RELEASED
2011-02-24

- NOTES:
1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHEET
ANNEALED 2B FINISH,
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240
OR ASME SA240
REF DART SPEC M304S11GA OR M303S11GA
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 0.33 lbs

DESIGN	MB	DART AEROSPACE LTD	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4149	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		AFT X-TUBE LUG ASSY	NTS
DATE	11.02.22	COPYRIGHT © 2018 BY DART AEROSPACE LTD	
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____							
Misidentified ☐	☐ Past Due								

DART AEROSPACE LTD		Work Order: 161707
Description: Aft Crosstube Lug Plate		Part Number: D4149-1
Inspection Dwg: D4149	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.129	+0.005/-0.001	Ø.130	1		V. 21-02	
Ø0.191	+0.005/-0.001	Ø.192	1		Taper	
Ø0.257	+0.006/-0.001	Ø.258	1			
Ø0.38	+0.006/-0.001	Ø.379	1			
0.380	+/-0.010	.386	1			
0.469	+/-0.010	.471	1			
0.310	+/-0.010	.312	1			
0.750	+/-0.010	.750	1			
3.25	+/-0.030	3.25	1			
0.65	+/-0.030	.65	1			
0.63	+/-0.030	.63	1			
5.46	+/-0.030	5.46	1			
3.80	+/-0.030	3.80	1			
2.13	+/-0.030	2.13	1			
1.313	+/-0.010	1.312	1			
0.625	+/-0.010	.624	1			
0.375	+/-0.010	.378	1			
1.175	+/-0.010	1.180	1			
0.752	+/-0.010	.756	1			
1.588	+/-0.010	1.587	1			
1.587	+/-0.010	1.588 1.588	1			
11.15	+/-0.030	11.15	1			
0.750	+/-0.010	.759	1			
1.55	+/-0.030	1.55	1			
1.12	+/-0.030	1.12	1			
8.42	+/-0.030	8.42	1			
2.70	+/-0.030	2.70	1			
0.125	+/-0.010	.11	1			
Ø0.252	+0.003/-0.000	Ø.252	1			

Measured by: DC	Audited by: DAS 38	Preliminary Approval:
Date: 17/05/30	Date: JUN 05 2017	Date:

Rev	Date	Change	Revised by	Approved
A	10.08.04	New Issue	KJ	
B	12.02.01	Dimensions updated per Dwg Rev C	KJ	

DQA: _____ Date: _____



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Work Order update only ☐

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Description Work Order Deviation				Disposition				Completed By	
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Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : _____									